WHAT IS CLAIMED IS:

1. A communication connecting device connected at one end to a first terminal unit and connected at the other end to a second terminal unit via an IP network, and selectively operable with a plurality of communication standards adaptive to said first terminal unit, said second terminal unit and said IP network for thereby implementing real-time communication, said device comprising:

a terminal unit control circuit for storing data received from the first terminal unit or the second terminal unit, and controlling said first terminal unit in accordance with a first communication standard;

a first storage storing size information representative of a size of data to be collectively coded;

a coding/decoding circuit for collectively coding the data in accordance with the size information read out of said first storage and the first communication standard and determining whether or not said data is control data relating to control of data or decoding coded data received from the second terminal unit in accordance with said first communication standard;

a second storage for storing, assuming a loss of the coded data output from said coding/decoding circuit, said coded data;

an information adding/separating circuit for adding a header and data, which makes up for the loss of the coded data assumed, to said coded data in accordance with a second communication standard relating to the IP network or separating coded data from data received from the second terminal unit and feeding said coded data separated to said coding/decoding circuit;

a control data monitoring circuit for causing, in response to a notification control signal output from said coding/decoding circuit to show that the data is the control

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data, said control data to be repeatedly read out of said second storage; and

an interfacing circuit for converting the coded data input via said control monitoring circuit to a signal based on a command or converting a signal received from the second terminal unit to the coded data.

2. The device in accordance with claim 1, wherein said coding/decoding circuit comprises a data discriminating circuit for determining whether or not the coded data is the control data, and outputting the notification control signal if said coded data is said control data.

3. The device in accordance with claim 1, wherein said control data monitoring circuit comprises:

a timer for starting counting time in response to an output of the control data to thereby count a period of time up to a receipt of an answer to said control data from a destination;

a comparing circuit for comparing the period of time counted by said timer and a preselected reference period of time; and

a retransmission control circuit for causing, when said comparing circuit determines that the period of time counted is longer than the reference period of time, the control data sent during counting of time to be again sent to the destination.

4. The device in accordance with claim 2, wherein said control data monitoring circuit comprises:

a timer for starting counting time in response to an output of the control data to thereby count a period of time up to a receipt of an answer from a destination;

a comparing circuit for comparing the period of time

counted by said timer and a preselected reference period of
time; and

a retransmission control circuit for causing, when said
comparing circuit determines that the period of time counted
is longer than the reference period of time, the control data
sent during counting of time to be again sent to the
destination.

5. The device in accordance with claim 4, wherein the
first communication standard and the second communication
standard respectively correspond to ITU-T Recommendation T.30
(revised in 1996) and Recommendation T.38 (June/1998), and
wherein said first terminal unit and said second terminal unit
comprise G3 (Group 3) facsimile apparatuses corresponding to
Recommendation T.30 (revised in 1996).

6. A data output control method for a communication
connecting device connected at one end to a first terminal
unit and connected at the other end to a second terminal unit
via an IP network, and selectively operable with a plurality
of communication standards adaptive to said first terminal
unit, said second terminal unit and said IP network for thereby
implementing real-time communication, said method comprising:

a first step of storing data received from the first
terminal unit or the second terminal unit;

a second step of outputting size information representative
of a size of data to be collectively coded;

a third step of collectively coding the data in accordance
with the read out size information and a first communication
standard, determining whether or not coded data produced in
the second step is control data for control of data, and
outputting a notification control signal if said coded data
is said control data;

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a fourth step of storing the coded data on the assumption of a loss of said coded data;

a fifth step of reading out, in accordance with a second communication standard relating to the IP network, a header for the coded data and the coded data stored on the assumption of the loss of said coded data, and combining said header and said coded data;

a sixth step of sending the control data read out a plurality of times in response to the notification control signal, while monitoring a transmission condition of said control data; and

a seventh step of converting the coded data to a signal based on a command and outputting said signal.

7. The method in accordance with claim 6, wherein said sixth step comprises:

an eighth step of starting counting time in response to an output of the control data and counting time up to a receipt of an answer to said control data from a destination; and

a ninth step of causing the control data sent during counting of time to be again sent when the period of time counted exceeds a preselected reference period of time.

8. The method in accordance with claim 7, wherein the first communication standard and the second communication standard respectively correspond to ITU-T Recommendation T.30 (revised in 1996) and Recommendation T.38 (June/1998), and wherein said first terminal unit and said second terminal unit comprise G3 facsimile apparatuses corresponding to Recommendation T.30 (revised in 1996).